Aging & Rehabilitation

An Interdisciplinary Research Seminar Series

UNIVERSITY OF FLORIDA

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Department of Veteran Affairs

- Rehabilitation Outcomes Research Center (RORC)
- Brain Rehabilitation Outcomes Research Center (BRRC)
- Geriatric Research, Education, and Clinical Center (GRECC)

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- **Brooks Center for Rehabilitation Studies**

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- Center for Gerontological Studies

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UF College of Nursing

Schedule

- January 9th, 2006 – May 22nd, 2006
- Mondays, 12:00 – 1:00
- Location: UF HPNP Building, Room G101
- Cyber Seminar:
  - VA RORC Conference Room, Commerce Building Downtown
  - VA BRRC Nursing Home Care Unit Conference Room (first floor)
  - UF Brooks Center Conference Room, Jacksonville (904) 306-8977

Themes

- Basic Science
- Clinical Science
- Outcomes / Health Policy
- Behavioral and Social Research
- Cutting Edge / New Research

The Relative Role of Social and Economic Factors on Utilization of Mental Health Services for Late Life Depression

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Late Life Depression

- Depression is common among older Americans
  - ~15-20% suffer from clinically significant depressive symptoms
- Depression severely impacts seniors
  - Physical, mental, social functioning, QOL
  - Health care utilization and costs
  - Leads to increased physical decline and mortality

Late Life Depression and Medical Illness

- Depression frequently co-occurs with chronic medical illnesses such as diabetes, hypertension, and cardiovascular conditions
  - Results in amplification of symptoms
  - Poor rates of adherence to treatment regimens
  - Poor outcomes of medical conditions
  - Higher mortality rates

Treatment for Late Life Depression

- Effective treatment for depression in late life exist
  - Antidepressant medication is effective and newer SSRIs and SNRIs minimize side effects
  - Psychotherapy also effective for less severe forms of depression
  - Combination of medication and psychotherapy shown to be the most effective
- Treating depression improves outcomes and reduces costs associated with other conditions

Under-Treatment of Late Life Depression

- Although effective treatment exists, woefully under-utilized
- Over half of older persons with depression do not have their condition recognized and diagnosed
- For those diagnosed, about ¼ receive no treatment
- Only 1/3 of older persons with recognized depression receive adequate treatment

Barriers to depression care

- Most older persons seek treatment in primary care settings
- Primary care providers much less likely to provide adequate depression treatment than MH specialists
  - Possible competing demands problem
  - But primary care providers getting better at treating depression
  - No longer difference in rates of offering treatment by age

Barriers to Depression Care

- Interventions have been developed to address provider/system barriers to care
  - IMPACT, PROSPECT, etc.
- Still considerable barriers on individual patient level
  - Economic
  - Social

Economic Barriers

- High out-of-pocket costs associated with depression
  - Greater than hypertension, arthritis
  - Similar to diabetes, heart disease
- Seniors often have limited income
- Cut back or skip medication due to costs
  - More likely to skip antidepressants than other meds

Social Barriers

- Attitudes towards depression
  - Perceived stigma
  - Sign of weakness
  - Natural part of aging
- Attitudes towards treatment
  - Worried about side effects
  - Can just make yourself “snap out of it”
  - Prayer can resolve treatment
- Social Support
  - Lack of social support can reduce help seeking for depression

Previous studies

- Although many studies have addressed barriers to care for late life depression, most have limitations
  - Data sources are often limited
  - Claims data, surveys not designed for mental health services research
- Not aware of any studies that used good measures of utilization, economic factors, AND social factors
  - Identify what type of factors serve as the major barrier to receiving depression treatment

Study Goals

- Construct a survey specifically designed to address mental health services utilization by older persons
- Use data from survey to determine whether social factors or economic factors are primary drivers of mental health service utilization in a depressed elderly cohort
- Funded through NIMH Career Development Award

Study Sample

- Medicare managed care plan in Tampa area agreed to provide access to enrollees and their health care claims
- Plan had ~35,000 enrollees in Tampa area
- Randomly selected 5,000 enrollees
- Enrollees screened for depression
- Administer in-person surveys to enrollees who screen positive for depression

Depression Screening

- Depression screens administered via phone
  - Used the PHQ-9 → score of 10+
- 5,000 randomly selected enrollees first sent letters to inform them of the study and given opportunity to opt out of the study
- Calls made from December 2003 – May 2004
- Only 772 were successfully contacted by phone and agreed to take the depression screen (no incentives offered to take screen)

Telephone Screens

- Very few returned postcards to opt out (N~200)
- ~30% could not be contacted (wrong number, never answered, etc.)
- ~20% contacted but refused to take screen
- ~5% physically, mentally, or language unable
- Response rate nearly doubled after removing “depression” from study introduction

Completed Depression Screens

- 772 completed PHQ-9
- 90 screened positive for depression (11.7%)
- 68 of 90 agreed to take in-person interview (76% response rate of eligible plan enrollees)
- All who agreed to take survey completed the survey

In-Person Surveys

- Surveys took place at respondent's preferred location
  - Usually in their home or at a restaurant
- Took approximately 60 minutes to complete
- Respondents were paid $25 for completed survey

In-Person Surveys

- Surveys administered using CAPI methods (interviewer used laptop computer)
- Informed consent to administer survey and access respondents' health care claims data was obtained
- Surveys administered from April – December 2004

Survey Measures

- Demographics
  - Age
  - Gender
  - Race
  - Marital status
  - Education
  - Income
  - Household size
  - Relationship of individuals in household

Survey Measures

- Cognition screener
  - Short Blessed Test
- General health status
  - Excellent, very good, good, fair, poor
- Functional status
  - ADL and IADL from OARS Multidimensional Functional Assessment Questionnaire
- Medical comorbidities
  - “Has a doctor ever told you that you had…”
  - Assessed for 13 different conditions

Survey Measures

- Psychiatric comorbidities
  - “Has a doctor ever told you that you had…”
  - Assessed for 9 psychiatric conditions
- PHQ-9 (depression screen)
- Health behaviors
  - History of alcoholism, current alcohol consumption, smoking
- Help seeking behavior
  - Questions taken from the PRISMe study
  - Do you worry about health, avoid the doctor, keep illness to yourself, etc.

Survey Measures

- Medication adherence
  - Asked if there were prescriptions that he/she did not fill in the past year
- Attitudes towards depression as illness
  - Questions taken from PRISMe study
- Attitudes towards depression treatment
  - From RWJ IHI Breakthrough Series on Depression
- Perceived stigma
  - Mental Health and Alcohol Abuse Stigma Assessment (PRISMe)

Survey Measures

- Health benefit structure
  - Copayment amounts, prescription drug coverage, coverage for preventative services, etc.
- Access to mental health care
  - Difficulties obtaining referrals, waiting times, transportation, etc.
  - Taken from the MCBS
- Financial burden
  - Perceived financial burden (e.g. can’t make ends meet)
  - Ever make choices between medical care and other necessities

Survey Measures

- Satisfaction with care and health plan
- Social support
  - Objective (from MCBS)
  - Perceived (MOS Social Support Survey)
- Religiosity
  - Objective, Intrinsic
  - Duke University Religion Index

Survey and Claims Data

- Claims/encounter data was obtained for 2004 for survey respondents
- Claims data included pharmacy, inpatient, and outpatient claims
- Counts of service utilization were created
  - Inpatient episodes
  - Outpatient visits
  - Antidepressant prescriptions filled
- Claims and Survey data were then merged

Goal of Analysis

- Assess whether social factors or economic factors are the most influential predictors of depressed Medicare managed care enrollees receiving depression treatment
- Only presenting preliminary analyses using subset of measured social and economic factors on probability of receiving antidepressant medication or any depression treatment

Measure for Economic Factor Used

- Perceived financial burden
  - "Thinking about your financial situation, would you say…"
    - Can't make ends meet
    - Have just enough to get along
    - Are comfortable

Measures of Social Factors Used

- Perceived social support from MOS Social Support Index
  - Measured as a continuous scale where higher values mean more social support
- Religiosity measures from Duke University Religion Index
  - Included both subscales
  - Objective religiosity
  - Intrinsic religiosity

Dependent Variables

- Examined two different measures of treatment
- Antidepressant treatment
  - Indicator for at least one filled prescription for an antidepressant during the year
- Any depression treatment
  - Indicator for either filled antidepressant medication, visit to a mental health specialist, or visit to a primary care provider with a primary diagnosis of depression

Demographic (Control) Variables

- Age
- Gender
- Marital status (married vs. not married)
- Race/Ethnicity
  - Measured as minority (African American or Latino) or not minority

Hypotheses

- Enrollees with high financial burden will be less likely to receive antidepressant and less likely to receive any depression treatment
- Enrollees with more social support will be more likely to receive antidepressants and more likely to receive any depression treatment
- Enrollees with high levels of objective and intrinsic religiosity will be less likely to receive antidepressants and less likely to receive any depression treatment
- Social factors will play more of a role than economic factors

Statistical Analysis

- Performed logistic regression
- Estimated four models for each dependent variable to assess change in pseudo R^2 from addition of measures
  - Only demographic variables
  - Only demographic and economic factor measure
  - Only demographic and social factor measures
  - All demographic, economic, and social factors

Characteristics of Respondents (N=68)

	Mean	Std. Dev.	Min	Max
PHQ-9	12.3	5.71	0	27
Age	76.0	6.53	65	90
Female	64.7%	-	-	-
Married	38.2%	-	-	-
Minority	11.8%	-	-	-

Characteristics of Respondents

	Mean	Std. Dev.	Min	Max
Financial Burden	14.7%	35.7	-	-
Social Support	3.6	1.0	1	5
DRI-OBJ	6.2	2.9	0	10
DRI-INT	8.6	3.4	0	12

Antidepressant Treatment Results

	R^2 of Model	% Change in R^2
Demographics	.195	-
Economic Factor	.220	12.8%
Social Factors	.196	0.5%
All Measures	.234	20.0%

Antidepressant Treatment Results

	Odds Ratio	95% CI	P-value
Age	0.82	0.70-0.96	.013
Female	1.20	0.26-5.45	.817
Married	2.11	0.46-9.68	.338
Minority	0.51	0.05-5.58	.578
Financial Burden (poor)	0.15	0.01-1.80	.135
Social Support	0.60	0.29-1.24	.168
Religiosity (objective)	0.95	0.70-1.29	.745
Religiosity (intrinsic)	1.15	0.88-1.50	.300

Any Depression Treatment Results

	R^2 of Model	% Change in R^2
Demographics	.116	-
Economic Factor	.183	57.8%
Social Factors	.121	4.3%
All Measures	.204	75.9%

Antidepressant Treatment Results

	Odds Ratio	95% CI	P-value
Age	0.90	0.81-1.00	.041
Female	2.01	0.49-8.23	.333
Married	2.11	0.52-8.60	.298
Minority	0.60	0.09-3.89	.595
Financial Burden (poor)	0.07	0.01-0.75	.028
Social Support	0.57	0.29-1.12	.102
Religiosity (objective)	0.98	0.74-1.29	.863
Religiosity (intrinsic)	1.04	0.83-1.31	.723

Conclusions

- Really, really hard to get people to take a depression screen over the phone
- Need a huge effect size to detect significant differences when N=68
- Perceived financial burden appears to play more of a role on help seeking for depression than social support or religiosity

Conclusions

- Social support works in opposite direction than hypothesized
  - More social support → less likely to seek/get treatment for depression
- Religiosity does not appear to play a significant role in help seeking for depression

Limitations

- Only includes enrollees of a single Medicare HMO in Tampa area
- Sample size very small
  - Unable to detect significant differences unless the effect size is huge
- Utilization measures only includes those services/drugs paid for by the health plan

Future Research

- Look at role of other factors on utilization
  - Stigma, Income, help seeking behavior, etc.
- Larger survey effort to increase sample size
  - Survey conducted as part of NIMH career development award (K01 MH63780)
  - Limited budget to conduct survey research
- Although not safe to make conclusions based on this research (do it anyway)
  - Interventions aimed at individuals might want to first focus on minimizing economic barriers to care